

## United States Patent and Trademark Office

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

APPLICATION NO.		FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/735,172		12/12/2003	Jorg Schultz	01641/1200440-US2	1663
7278	7590	02/03/2005		EXAMINER	
DARBY &		Y P.C.	SCHWARTZ, JO	SCHWARTZ, JORDAN MARC	
P. O. BOX : NEW YOR		10150-5257		ART UNIT	PAPER NUMBER
,				2873	· ·
			DATE MAILED: 02/03/2005		

Please find below and/or attached an Office communication concerning this application or proceeding.

(	3	M
_	$\circ$	

		(\forall \)
	Application No.	Applicant(s)
	10/735,172	SCHULTZ ET AL.
Office Action Summary	Examiner	Art Unit
	Jordan M. Schwartz	2873
The MAILING DATE of this communication a Period for Reply	appears on the cover sheet wit	h the correspondence address
A SHORTENED STATUTORY PERIOD FOR RESTHE MAILING DATE OF THIS COMMUNICATION  - Extensions of time may be available under the provisions of 37 CFR after SIX (6) MONTHS from the mailing date of this communication.  - If the period for reply specified above is less than thirty (30) days, a lif NO period for reply is specified above, the maximum statutory perions for reply within the set or extended period for reply will, by state Any reply received by the Office later than three months after the material patent term adjustment. See 37 CFR 1.704(b).	N. R. 1.136(a). In no event, however, may a re reply within the statutory minimum of thirty iod will apply and will expire SIX (6) MONT stute, cause the application to become ABA	ply be timely filed  (30) days will be considered timely.  HS from the mailing date of this communication.  ANDONED (35 U.S.C. § 133).
Status		
1) Responsive to communication(s) filed on 2a) This action is <b>FINAL</b> . 2b) ☑ T  3) Since this application is in condition for allow closed in accordance with the practice under	his action is non-final. wance except for formal matte	• •
Disposition of Claims		
4) ☐ Claim(s) <u>1-62</u> is/are pending in the applicating 4a) Of the above claim(s) is/are with description 5) ☐ Claim(s) is/are allowed.  6) ☐ Claim(s) is/are rejected.  7) ☐ Claim(s) is/are objected to.  8) ☐ Claim(s) <u>1-62</u> are subject to restriction and/or	Irawn from consideration.	
Application Papers		
9) The specification is objected to by the Exam  10) The drawing(s) filed on is/are: a) a  Applicant may not request that any objection to the Replacement drawing sheet(s) including the correction.  The oath or declaration is objected to by the	nccepted or b) objected to be the drawing(s) be held in abeyand rection is required if the drawing(s	ce. See 37 CFR 1.85(a). s) is objected to. See 37 CFR 1.121(d).
Priority under 35 U.S.C. § 119		
12) Acknowledgment is made of a claim for foreign a) All b) Some * c) None of:  1. Certified copies of the priority docume 2. Certified copies of the priority docume 3. Copies of the certified copies of the priority docume application from the International Bure * See the attached detailed Office action for a life.	ents have been received. ents have been received in Ap riority documents have been r eau (PCT Rule 17.2(a)).	oplication No received in this National Stage
Attachment(s)		
Notice of References Cited (PTO-892) Notice of Draftsperson's Patent Drawing Review (PTO-948)		ımmary (PTO-413) /Mail Date

Paper No(s)/Mail Date \_\_\_

3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)

5) Notice of Informal Patent Application (PTO-152)
6) Other: \_\_\_\_\_.

## Restriction

Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims 1-40, 43-62, drawn to a REMA objective, classified in class 359, subclass 656.
- II. Claims 41-42, drawn to a microlithography projection apparatus, classified in class 359, subclass 649.

The inventions are distinct, each from the other because of the following reasons:

Inventions in Group II and Group I are related as combination and subcombination. Inventions in this relationship are distinct if it can be shown that (1) the combination as claimed does not require the particulars of the subcombination as claimed for patentability, and (2) that the subcombination has utility by itself or in other combinations (MPEP § 806.05(c)). In the instant case, the combination as claimed does not require the particulars of the subcombination as claimed because the microlithography projection apparatus does not require a REMA objective with a condenser portion, an intermediate portion and a field lens portion, does not require a REMA objective with a transition zone in which a 5 % and 95% brightness levels are separated by less than 2 percent of the image field diameter, does not require a REMA objective with first and second partial objectives with chief rays intersecting in a region of an aperture plane, or does not require a REMA objective with an image side working distance of at least 30 mm. The subcombination has separate utility such as being used in any imaging apparatus that does not require a projection objective or any

Application/Control Number: 10/735,172

Art Unit: 2873

imaging apparatus in which in each point of a reticle plane an incident chief ray deviating more than 3 mrad from a chief ray of a projection objective.

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

Because these inventions are distinct for the reasons given above and the search required for any one Group is not required for the other Group, restriction for examination purposes as indicated is proper.

This application contains claims directed to the following patentably distinct species of the claimed invention: Group Ia, claims 1-20 directed to a species of REMA objective comprising at least one or two aspheric lens surfaces in each of a condenser portion, intermediate portion, and field lens portion; Group Ib, claims 21-40 directed to a species of REMA objective comprising one to 5 aspheric lens surfaces, a light conducting value of at least 8 mm, and that does not require a condenser portion, an intermediate portion, and a field lens portion; Group Ic, claims 43-50 directed to a species of REMA objective comprising first and second partial objectives and a maximum angular deviation between chief ray and energy-weighted average ray for all field heights is smaller than 2 mrad; Group Id, claims 51-53 and 56-59 directed to a species of REMA objective comprising a field lens portion or an intermediate portion with a positive and negative lens containing at least one aspheric surface; Group Ie, claims 54-55, directed to a species of REMA objective having an image side working distance of at least 30 mm and that can have any structure i.e. does not require a

Application/Control Number: 10/735,172

Art Unit: 2873

condenser portion, an intermediate portion and a field lens portion; Group If, claims 60-62 directed to a species of REMA objective comprising a condenser portion, an intermediate portion and a field lens portion with an beam splitter between the intermediate portion and field lens portion.

Applicant is required under 35 U.S.C. 121 to elect a single disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable. Currently, no claim is generic.

Applicant is advised that a reply to this requirement must include an identification of the species that is elected consonant with this requirement, and a listing of all claims readable thereon, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered nonresponsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over

'Application/Control Number: 10/735,172

Art Unit: 2873

the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jordan M. Schwartz whose telephone number is (571) 272-2337. The examiner can normally be reached on Monday to Friday (8:00-5:30), alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Georgia Y. Epps can be reached at (571) 272-2328. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Application/Control Number: 10/735,172

Art Unit: 2873

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Page 6

Jordan M. Schwartz **Primary Examiner** Art Unit 2873

February 1, 2005